

memorandum

DATE: July 28, 2000

REPLY TO
ATTN OF: Office of Environmental Policy and Guidance (EH-413):Fortune:6-7302

SUBJECT: EPA Notice of Proposed Rulemaking: *Treatment Standards for Spent Potliners from Primary Aluminum Reduction (K088) and Regulatory Classification of K088 Vitrification Units*

TO: Distribution

Purpose of this Memo

[1] To advise selected DOE elements of a notice of proposed rulemaking (NPRM) published in the *Federal Register* by the U.S. Environmental Protection Agency (EPA) on July 12, 2000 (65 FR 42937), which contains suggested regulatory revisions having the potential to affect the way all **vitrification** units treating hazardous wastes (including mixed wastes) are regulated under the Resource Conservation and Recovery Act (RCRA).

[2] To request that DOE elements involved with vitrification units/projects review and provide comments in response to this NPRM.

Contents of the NPRM

In this NPRM, EPA proposes to revise certain land disposal restriction (LDR) treatment standards for spent potliners from primary aluminum reduction (EPA Hazardous Waste No. K088), which is not directly relevant to DOE activities.

Nevertheless, the NPRM also announces that EPA has determined vitrification to be the Best Demonstrated Available Technology (BDAT) for treating K088 waste. Furthermore, the NPRM explains that:

- [1] K088 waste vitrification units will be classified as Subpart X miscellaneous hazardous waste treatment units for purposes of regulation under 40 CFR Part 264;
- [2] RCRA permit writers must use the maximum achievable control technology (MACT) standards for hazardous waste incinerators [40 CFR Part 63, Subpart EEE, revised at 64 FR 53038 (September 30, 1999)] as a point of departure when setting unit-specific air emission limits for a K088 waste vitrification unit; and
- [3] EPA believes the rationale for regarding K088 vitrification units as Subpart X miscellaneous units could logically be extended to all hazardous waste vitrification units, whether direct-fired or indirectly heated, and irrespective of the waste being treated or recycled.

DOE Relevant Issue: The NPRM expressly requests comments on the notion of extending the regulatory approach proposed for K088 vitrification units to all hazardous waste vitrification units.

Summary of Issues

The *Attachment* to this memorandum summarizes how the NPRM proposes to implement some particular aspects of the Subpart X requirements with respect to K088 vitrification units. However, the NPRM is not clear about whether EPA advocates the same methods of implementation if the proposal is extended to all hazardous waste vitrification units.

Consequently, to ensure that DOE concerns, if any, are considered in the event EPA decides to extend its proposal to all hazardous waste vitrification units, DOE elements are encouraged to comment as if the implementation methods described in the attachment would also be used for DOE hazardous and mixed waste vitrification units. Among other things, DOE elements should consider whether the basis for the proposed implementation methods (i.e., potential emissions of toxic compounds to the air) has relevance for DOE hazardous

and mixed waste vitrification units. Other questions for consideration are listed (in the attachment) following the description of each implementation method.

**Availability
of NPRM**

The NPRM was published in the Federal Register at 65 FR 42937 - 42959, and can be accessed via the Internet at:

<http://www.epa.gov/epaoswer/hazwaste/ldr/k088.html>

**Action
Items**

DOE elements are requested to provide their comments (and available supporting data) to the Office of Environmental Policy and Guidance (EH-41) **on or before Wednesday, August 23, 2000.**

- In providing your input, please refer to the specific sections of the NPRM to which each item pertains.
- Input may be submitted (with a signed, hard copy to follow) to:

E-Mail william.fortune@eh.doe.gov
FAX (202) 586-3915

Based on the input from DOE elements and an internal analysis, EH-41 will develop a consolidated Departmental response to the NPRM.

Contact

If you have questions regarding the NPRM or this request for comments, please contact Bill Fortune at (202) 586-7302.



Thomas T. Traceski
Director, RCRA/CERCLA Division
Office of Environmental Policy and Guidance

Attachment

Summary of Issues [& Questions for DOE Elements to Consider]

1. EPA has determined that a K088 vitrification unit, which treats spent aluminum potliners (a listed hazardous waste) and generates usable residues, should be classified as a hazardous waste treatment unit, even though spent aluminum potliners could arguably be excluded from the definition of solid waste because the vitrification process uses the spent potliners as an ingredient to make a product (40 CFR 261.2(e)(1)). In EPA's view, K088 vitrification units should be regulated as hazardous waste treatment units even though they recycle K088 wastes, because improper design, operation, or maintenance of these units could result in emissions of toxic compounds to the air at levels that could pose a hazard to human health and the environment. Accordingly, the NPRM announces that K088 waste vitrification units will be regulated under 40 CFR Part 264 as Subpart X miscellaneous hazardous waste treatment units. [See 65 FR 42945, col. 3 - 42946, above table].
 - *It appears that regulating hazardous and mixed waste vitrification units as Subpart X miscellaneous units would be more appropriate than regulating them as incinerators or industrial furnaces. Are there any circumstances or situations where this would not be the case?*
 - *Are any existing or planned DOE hazardous or mixed waste vitrification units expected to qualify for the RCRA recycling exemption?*
 - *If so, would EPA's argument that K088 vitrification units emit toxic compounds, which warrant regulation in spite of the exemption, apply to such DOE units?*
 - *If not, is it possible to argue that certain DOE hazardous and mixed waste vitrification units which are involved in recycling should remain exempt from RCRA permitting requirements?*

2. To avoid individual controversies over air emission limits in Subpart X permits for K088 vitrification units, the NPRM proposes that the hazardous waste incinerator MACT standards (40 CFR Part 63, Subpart EEE) be presumed to apply, unless the permit writer for a particular unit develops a technical justification for not doing so. The basis for this presumption is EPA's conclusion that the incinerator MACT standards are technically appropriate and necessary to address the hazards posed by toxic metal and nonmetal emissions from K088 vitrification units. [See 65 FR 42948, cols. 2-3].
 - *If the hazardous waste incinerator MACT standards are presumed to apply to DOE hazardous and mixed waste vitrification units, what concerns, if any would arise?*
 - *If concerns would arise, are they adequately addressed by the opportunity to develop a technical justification for not applying the hazardous waste incinerator MACT standards?*

3. The NPRM declares that, upon promulgation of final regulations, it would be appropriate for an authorized state to allow an existing K088 vitrification unit to qualify for interim status, if the state had previously determined the unit to be excluded from the requirement to obtain a RCRA permit. The NPRM reasons that this approach may avoid substantial confusion concerning the proper emission controls that should apply to a previously exempt K088 vitrification unit. [See 65 FR 42948, col. 3 - 42949, col. 1].

For any existing DOE hazardous or mixed waste vitrification units that are exempt from RCRA permitting requirements:

 - *Are toxic air emissions from such units controlled by a non-RCRA permit?*
 - *If toxic air emissions are not controlled by a non-RCRA permit, what would be the consequences of a requirement to obtain RCRA interim status and apply for a RCRA permit?*